the loss sustained by debtors in general, by the appreciation of gold, after allowing for the fall of interest due to the anticipation of this appreciation, has been about two-thirds of one per cent per annum.

The foregoing will serve to convey an idea of Professor Fisher's work. It abounds in acute observations of which no mention has been made; nor has any account been given of Part III, which, while bearing directly on the living question of bimetallism, is less distinctive. The labor involved in the construction of the tables must have been extremely great. The argument is sometimes open to the charge of being one-sided, the author's attention being so strongly concentrated upon the single factor he is discussing; but it is marked throughout by great ability and insight. Professor Fisher's monograph will repay close study, and is certainly a valuable contribution to scientific economics.

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An Essay on the Present Distribution of Wealth in the United States. By CHARLES B. SPAHR, Ph.D. New York, Thos. Y. Crowell & Co., 1896. — 184 pp.

Dr. Spahr has brought together what statistics there are bearing on the distribution of wealth and of incomes in Europe and the United States. It is needless to say that such statistics are very difficult to get. A census of individual wealth or income has never been attempted; and it could never be successful, because of the ignorance, untruthfulness and suspiciousness of individuals. Statistics based on income taxes, probate returns, *etc.*, suffer from the desire of people to minimize their tax burdens, and from the policy of exempting the lower incomes. The doubtfulness of the absolute figures is still further accentuated by the necessity of filling up the *lacunae* with estimates of wages, of the average amount of property enjoyed, of average consumption, *etc.*, which allow a wide margin for the subjective bias of the operator to work in.

Of these dangers Dr. Spahr is well aware. In his preface he says:

> The writer has learned, and hopes to teach, that, upon matters coming within its field, the common observation of common people is more trustworthy than the statistical investigations of the most unprejudiced experts. Indeed, he has come to believe that social statistics are only trustworthy when they show the world at large what common observation shows to those personally familiar with the conditions described.

Throughout the book Dr. Spahr gauges the bias or subjective judgment of his authorities, going so far in respect to some criticism of his own original work as to say: "This criticism would have been valid had it not come from a conservative . . . " (p. 59).

These scientific tests or canons of criticism, namely, the rejection of statistics that are contrary to common sense and of evidence presented by prejudiced observers, seem to be very fair; but when they are applied in the body of the book, their superficiality is at once apparent. The "common observation of common men" turns out to be Mr. Spahr's opinion that wealth is very unequally distributed. Every statement, however wild (such as Mr. Holmes's 4000 millionaires worth $3,000,000 apiece), that supports this opinion, is cordially accepted as statistics; while Mr. Giffen's most careful and elaborate studies are minutely criticised and then rejected. The ground for classing Mr. Holmes as a conservative, and for denouncing the whole "Aldrich Report," on the charge that the men engaged on it were hurtfully biased by the political bearings of the question, lies also in Dr. Spahr's subjective consciousness.

Statistics must be treated objectively. The inferences from them depend for their validity upon the success of the statistician in basing his figures upon trustworthy observation and in avoiding the use of conjectures to supplement his figures. The weak point in all these statistics is the large part played by "it is estimated." Mr. Holmes's conclusion that nine per cent of the families of the United States own about seventy-one per cent of the wealth rests on not less than six pure "estimates" or assumptions in regard to the average wealth of different classes over and above their indebtedness. By a further series of "estimates" — for example, by conjecturing that "in the nation at large, the number of families worth more than $500 is perhaps one million in excess of the number owning their homes or farms," and "that the propertyless families own household property worth $150" — Dr. Spahr reaches the conclusion that one per cent of the families own as much property as the remaining ninety-nine. I doubt if this conclusion would agree with the "common observation of common people"; but even if it should, it is not based on statistics.

Having shown that property and incomes are unequally distributed and that (in his opinion) the inequality is increasing, Dr. Spahr seems to think that his task is ended. But that is only the beginning. The real question is whether such concentration of wealth is not a good thing for the whole community. Dr. Spahr naïvely

assumes that an equal distribution of wealth is the best system. Still more naïvely he asserts:

> The distribution of wealth is under the direct control of laws for which the national conscience is responsible; and the distribution of wealth has become better or worse precisely as the national conscience has been directed to, or directed from, the laws controlling it.

This happy position ignores the complexity of the social arrangements by which wealth is produced and distributed, and the absolute necessity for leadership in industry, for forethought and saving, and for the development of character and responsibility.

The happiness of individuals is measured, not according to their ownership of property or even according to income, but according to their command of the enjoyments of life. To measure this statistically is a task which Dr. Spahr does not essay. Mr. Giffen's *Progress of the Working Classes* still remains the most notable attempt in that direction, but it is ignored in this book. In Part III on the "Distribution of Taxes," the author seems to catch the true spirit of such an investigation. The injustice of particular forms of taxation, says he, rests on the unequal diminution of the power of enjoyment which they impose on the several classes. He advocates the principle of the personal property tax as "thoroughly imbedded in the public consciousness," so that "violations of it are everywhere felt to be an abuse demanding a remedy." But he glides over the difficulties of assessing personal property, and even seems to believe that we are more and more successful in reaching its true valuation. The polemic against Professor Seligman's assertion that the assessed valuation of personal property in California had decreased since 1872 is hardly sustained by the table on page 148, namely:

Assessment of Personalty in California.

1871	$ 86,000,000
1872	220,000,000
1873	118,000,000

This shows, according to Dr. Spahr, that 1872 was an exceptional year. But if we continue the table, we shall have:

1874	$210,000,000
1875	199,000,000,

which removes the basis for such a contention. It would be pleasant to believe that personal property pays its full share of taxes, for it would nullify much of the denunciation of the rich for

evasion of public burdens. It does not seem to me, however, that Dr. Spahr has given due consideration to the mass of evidence presented by Dr. Seligman on this point in the essay on the property tax, from which the above figures were taken. Without presuming to decide the question, I should say that Dr. Spahr's further contribution to the discussion, namely, that the census estimate of the amounts of personal and of real property ($25,000,000,000 and $40,000,000,000, respectively) reveals the true proportion of personalty to realty, and that assessed values are approaching that proportion, involves the statistical fallacy that is so frequent throughout the book — the assumption that the correspondence of two uncertain estimates establishes certitude.

RICHMOND MAYO-SMITH.

La Science Sociale, d'après les Principes de Le Play et de ses Continuateurs. Par J. B. M. VIGNES. Paris, V. Giard et E. Brière, 1897. — 2 vols., 460, 455 pp.

Conscience et Volonté Sociale. Par J. NOVICOW. Paris, V. Giard et E. Brière, 1897. — 380 pp.

An important contribution to descriptive sociology is made by M. Vignes's work, in which one of the definite methods which have been proposed for this science — that of Le Play — is applied, not indeed with the minute fullness of Le Play's own writings, but with rather more consecutiveness and with more conciseness and precision.

The work is divided into three parts. The first, after an explanation of Le Play's method, presents a careful account of primitive social conditions, including a description of the primitive family, of the economic stages of fishing, hunting and pasturage, of the beginnings of the useful and liberal arts, and of the primitive modes of religion. The second part deals with the invention of labor-saving devices, the domestication of animals and the use of wind and water for transportation and for rude manufacturing operations. This stage brings with it certain transformations of the family, which are explained, with little attempt at critical discussion. The development of new arts of utility, and the origins of mining, forestry and exchange are also explained ; and the new developments of religion, of war and of government, which are consequent upon the economic progress of this stage, are considered. The third part deals with the age of steam and of electricity. The great inventions and the modern organization of labor are described ; and those changes in family life which have been brought about by the transformation of industry,